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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,236	01/29/2002	Akira Murakami	330-243	2265

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

LOPEZ, CARLOS N

ART UNIT PAPER NUMBER

1731

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,236

Applicant(s)

MURAKAMI, AKIRA

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/12/06 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1) Claims 1, 3, 6-8, 14,16, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (JP 08-040729).

Yamamoto discloses a method of making optical elements. The method comprises press molding glass material between an upper mold 102 and a lower mold 103. The press molding of Yamamoto does not cause any surrounding portion of the glass material to come in contact with the mold member or mold parts due to jetting member 104 providing gas to the free surface of the glass material 101. In view that the free surface of the glass material being molded does not contact any part of the

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mold, it is reasonable to conclude that the produced molded glass has no notch portion and its surrounding edge portion (deemed as the portion of the glass material not in contact with the upper or lower mold in particular the peripheral lateral surface).

In regards to the claimed limitation of providing a glass material in a molten state, Yamamoto in the provided machine translation at paragraph 30 notes that the glass material may be provided as molten glass gob.

In regards to claim 3 and 16, the molded material is deemed as having its minimum value of thickness be the maximum thickness value of the resultant final glass, since Yamamoto in paragraph 02 of the machine translation notes of further grinding the blank.

As for claim 7 and 20, the molds have a lower temperature than the supplied glass material, see machine translation paragraph 21.

As for claims 8 and 21, figures 1-7 show the glass blank being shaped into a disk.

In regards to claims 14 and 16, paragraph 3 of Yamamoto notes that the glass material is molded is cooled to a temperature lower than its glass transition temperature the press pressure is removed, meaning the mold members are released and then it is taken out. Since the molded material is only cooled to a temperature below its transition point temperature prior to being released from the mold, it would thus mean that the glass material after being released would require to be cooled to room temperature.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 2-3, 6-10,15,16,19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (JP 08-040729) in view of Murakami et al JP 10-236831 (for which US 6,442,975 is taken as the JP equivalent). Yamamoto is silent disclosing a substrate blank having a flat front and reverse sides. However, the shape of the substrate would depend on its intended use. As shown by Murakami, glass blanks having a flat front surface are used as substrates for a recording medium. Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to form the glass substrate of Inoue with a flat front and reverse surfaces in order to use the glass substrate as a recording medium. Hence, the claimed positive active steps to form glass substrates with varying shapes is only indicative of the intended use of the glass substrate merely varying the shape of the mold but performing the active steps claimed.

As for claims 2 and 15, the claimed flat front surface, reverse surface and a surface formed of the surrounding edge portion is deemed respectively as the top surface, bottom surface and edges surface the Murakami's glass blank 44.

As for claims 3 and 16, Murakami teaches that the glass substrate blank 44 has a thickness greater than the final product, which is the claimed glass substrate (Col. 15, lines 59-60).

As for claims 7 and 20, the molds have a lower temperature than the supplied glass material, see machine translation paragraph 21.

As for claims 8-9 and 21-22, the glass is pressed molded to have a disk shape with a thickness of 2-4 mm (Murakami Col. 2 lines 64ff). As shown in figure 10 the circumferential edge of glass blank 44 does not touch the mold dies 17 and 14 as it is being pressed formed.

3) Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (JP 08-040729) in view of Suzuki (JP 10-194760). Yamamoto is silent disclosing the claimed large and small thickness portion. However, Suzuki figures 2 and 7 show a thicker portion at the middle and edges of a substrate blank eliminate warpage of a press formed glass. Hence, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have provided a substrate blank having a thicker portion at the middle and edges of Yamamoto's glass blank as taught by Suzuki in order to eliminate warpage

4) Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (JP 08-040729) in view of Murakami et al JP 10-236831 (for which US 6,442,975 is taken as the JP equivalent) as applied to claim 3 above and in further view of Suzuki (JP 10-194760). Yamamoto is silent disclosing a substrate blank having the claimed small and large thickness portions recited in claim 5. However, Enomot

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teaches that glass substrates having the claimed large and small portions as recited in claim 5 prolongs the service life of the molds, shorten process time and provides a glass substrate with excellent shape accuracy . Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to form the glass substrate of Inoue with the claimed small and large portions as taught by Enomot in order to prolong the service life of the dies, shorten process time and provide a glass substrate with excellent shape accuracy .

5) Claims 11-13 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over over Yamamoto (JP 08-040729) in view of Murakami et al JP 10-236831 (for which US 6,442,975 is taken as the JP equivalent). Murakami teaches that the glass blank may be grinded and polished (Col. 7, lines19ff). However, Murakami is silent on cutting the glass blank. The Murakami method is for the production of a recording medium such as a CD. Since CDs currently have a hole at the center it would be obvious to a person of ordinary skill in the art at the time the invention was made that a cut would be expected on the glass blank disc in order to form the hole of an information recording medium CD.

As for claims 12 and 25, Murakami teaches of using crystallized glass as the glass substrate, see col.7-8, and hence would require a heat treatment.

In regards to claims 13 and 26's limitation of forming an information layer on the substrate, Murakami teaches of laminating a magnetic layer on the substrate (Col. 7, line 57ff).

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Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, consisting of stylized, overlapping letters that appear to be 'L' and 'Z'.